

AMENDMENT TO THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

In the Claims:

1-3. (Cancelled)

4. (Previously Presented) The method according to claim 5, wherein said perfluoro-compounds include at least one compound selected from the group consisting of CF_4 , CHF_3 , CH_2F_2 , C_2F_4 , C_2F_6 , C_3F_6 , C_3F_8 , C_4F_8 , C_4F_{10} , NF_3 and SF_6 .

5. (Currently amended) A method of catalytic decomposition of exhausted perfluoro-compounds, which comprises passing exhausted perfluoro-compounds through ~~the catalyst of claim 1~~ an aluminum oxide catalyst in the presence of water vapor at the temperature range of $400\text{-}800^\circ\text{C}$,

wherein the surface of said aluminum oxide is loaded with phosphorus (P) component at an aluminum/phosphorus mole ratio of 10 to 100;

wherein the aluminum oxide is formed from an aluminum precursor selected from the group consisting of Al_2O_3 , $\text{Al}(\text{OH})_3$, gamma alumina, boehmite and pseudo-boehmite and the phosphorous (P) component is selected from the group consisting of diammoniumhydrophosphate $(\text{NH}_4)_2\text{HPO}_4$, ammoniumdihydrophosphate $(\text{NH}_4)\text{H}_2\text{PO}_4$, and phosphoric acid H_3PO_4 ; and

wherein no additional metallic components are present in said aluminum oxide catalyst.

6. (Original) The method according to claim 5, wherein said water vapor is contained at a water vapor/perfluoro-compound mole ratio of 1 to 100.

7. (Original) The method according to claim 5, wherein oxygen is added at a concentration of 0-50% together with said water vapor.

8. (Previously Presented) The method according to claim 4, wherein said perfluoro-compounds include at least one compound selected from the group consisting of CF_4 , CHF_3 , C_2F_6 , C_3F_8 , C_4F_{10} , NF_3 and SF_6 .

9. (Previously Presented) The method according to claim 8, wherein said water vapor is contained at a water vapor/perfluoro-compound mole ratio of 1 to 100 and wherein oxygen is added at a concentration of 0-50% together with said water vapor.

10-15. (Cancelled)

16. (Currently amended) ~~A method of catalytic decomposition of exhausted perfluoro-compounds, which comprises passing exhausted perfluoro-compounds through the catalyst of claim 12 in the presence of water vapor at the temperature range of 400-800°C. The method according to claim 5, wherein said phosphorous (P) component is diammoniumhydrophosphate $(\text{NH}_4)_2\text{HPO}_4$.~~

17. (Currently amended) A method of catalytic decomposition of exhausted perfluoro-compounds, which comprises passing exhausted perfluoro-compounds through the catalyst of claim 14 in the presence of water vapor at the temperature range of 400-800°C. The method according to claim 5, wherein said phosphorous (P) component is diammoniumhydrophosphate $(\text{NH}_4)_2\text{HPO}_4$.

18-19. (Cancelled)